



100 Year Hurricane Protection Projects Lake Pontchartrain and Vicinity

**April 11, 2007 - 7:00 – 9:00 pm
Avalon Hotel & Conference Center
10100 I-10 Service Road
New Orleans, Louisiana**

Environmental Compliance

37 Environmental Laws that must be considered.

National Historic Preservation Act

Threatened and Endangered Species Act

Clean Water Act

National Environmental Policy Act

“NEPA”

National Environmental Policy Act of 1969 “NEPA”

- Required that an environmental analysis be prepared for major federal actions.
- Analysis looks at potential impacts to the human environment.
- Coordination with Federal and State Resource Agencies, Environmental Groups and the Public.

Typical Analysis

- Purpose & Need for the Project
- Alternatives (including No-Action, Non-Structural Alternatives)
- Natural Environment
Fish & Wildlife, Wetlands, Water Quality, Hydrology, Endangered Species, Direct, and Cumulative Impacts
- Man-made Environment
Socio-Economic, Cultural, Recreation, Air Quality, and Hazardous Materials
- Mitigation

NEPA Scoping Process

“There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action.”

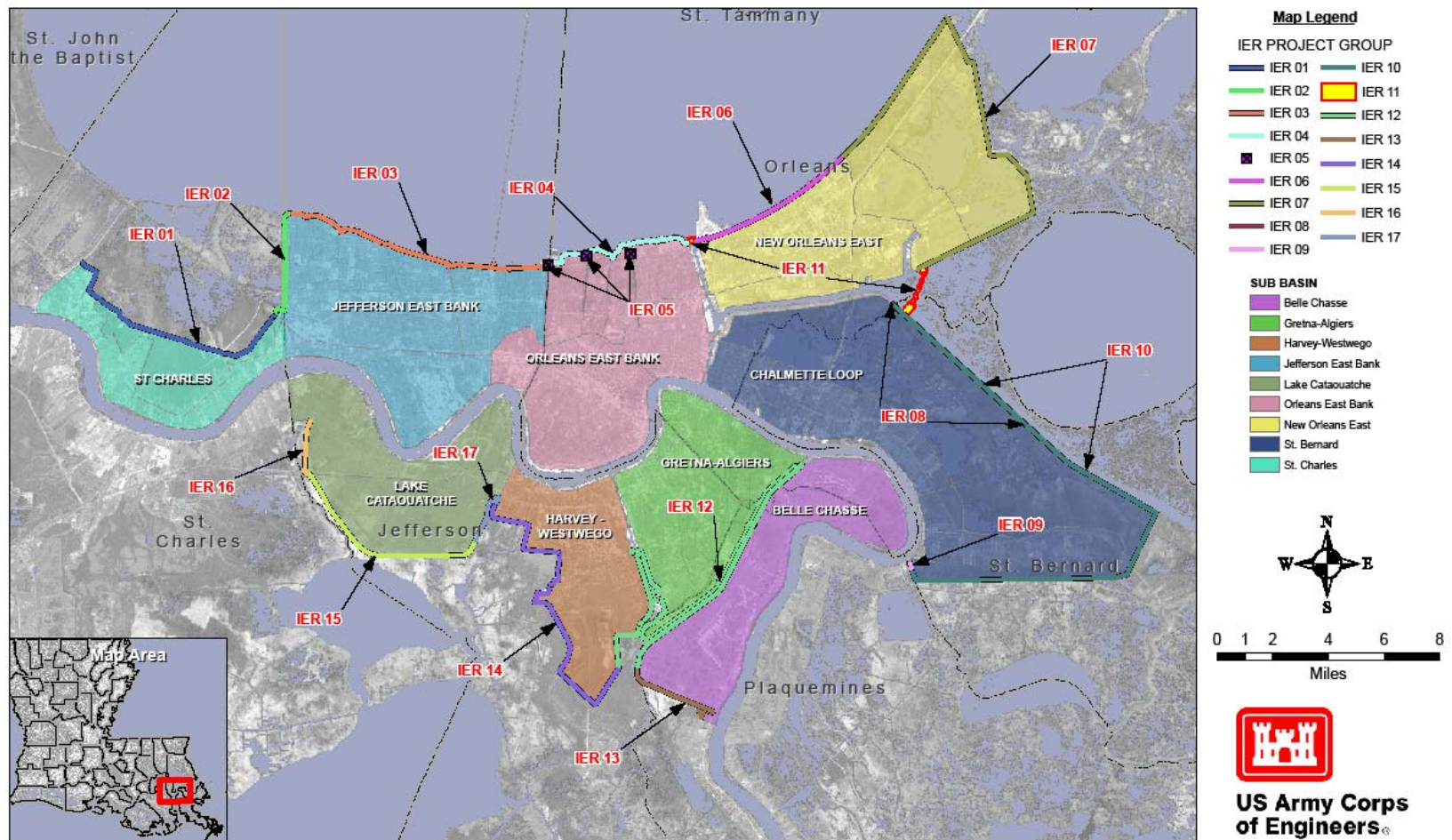


Scoping Process

- Public meetings and written comment period.
- Opportunity for public and other interested parties to express concerns and suggest alternatives to be considered by Corps.

Project Study Area

Sub Basins and Representative Project Groups



Scoping Questions



Question #1: What are the most important issues, resources, and impacts that we should consider in the IER?

Examples:

- hurricane and flood protection
- protection of the environment (ie: wetlands, water quality, threatened and endangered species)
- protection of lives, homes, businesses, other properties
- protection of infrastructure (ie: roads, communications)

Scoping Questions



Question #2: Are there any other alternatives or modifications to existing alternatives that we should consider in the IER?

Examples:

- Other alternatives that provide hurricane protection
- Non Structural alternatives (raise roads, homes, etc)

Scoping Report

A Scoping Report will be written that summarizes the significant issues, alternatives and concerns of the public.

Monthly Meetings

Monthly public meetings will be held during the duration of the project. First meetings will start in May 2007.

Orleans Parish Hurricane Protection System

**Interim Environmental Report (IER)
Scoping Meeting
April 11, 2007**

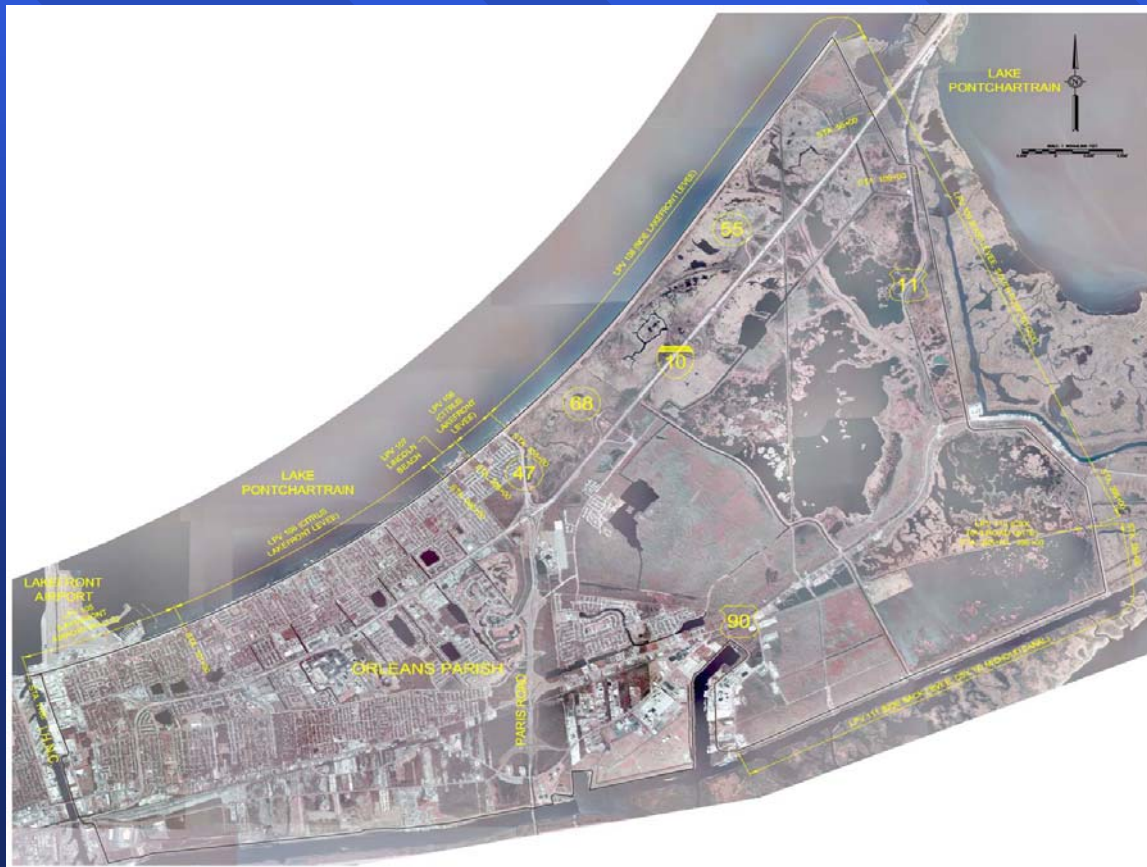
Overall Project Map

- LPV 101 – Lakefront Levee OEB - 17th St Canal to Topaz St**
- LPV 102 – Lakefront Levee OEB - Topaz to Orleans Canal**
- LPV 103 – Lakefront Levee OEB - Orleans Canal to London Ave**
- LPV 104 – Lakefront Levee OEB - London Avenue Canal to IHNC**



Overall Project Map

- LPV 105 – Lakefront Airport Floodwalls**
- LPV 106 – Citrus Lakefront Levee (west of Paris Road)**
- LPV 107 – Lincoln Beach Floodwall**
- LPV 108 – NOE Lakefront Levee**
- LPV 109 – New Orleans East Levee – Southpoint to GIWW**
- LPV 110 – New Orleans East Back Levee – CSX Railroad Gate**
- LPV 111 – New Orleans East Back Levee – CSX RR to Michoud Canal**



Alternatives being considered, include:

LPV 101.02

- 1) Replace earthen levees and existing floodwall with T-wall along existing alignment;
Replace vehicle access gates;
Realign floodwall to cross Pontchartrain Blvd near its intersection with Lake Marina Ave**



U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION

Map Legend

- Channel Floodgate
- Basin Floodgate
- Railroad Floodgate
- Road Floodgate
- Pump Station
- Federal Interlake Flood-wall
- Federal Interlake Flood-wall
- Federal Interlake Levee
- Federal Interlake Levee and Flood-wall
- Interlake Levee
- Federal Interlake Levee
- Federal Interlake Levee and Flood-wall
- Federal River Levee
- Federal River Levee and Flood-wall
- Federal T Flood-wall
- Local Drainage Levee; Local Interlake Levee
- Local Interlake Levee and Flood-wall
- Local Levee; Floodwall
- Road Levee
- Port Boundary

PROJECT STATISTICS
Total Length: 3,228'
Federal Floodwall: 2,078'
Federal Hurricane Levee: 630'
Federal Levee and Floodwall: 283'
Structural Gaps (5): 236'
Authorized Grade: 14'
100-Year Grade: 16'-18'
Existing Elevation: 12.5'-13.5'
Est. Cost (Millions): Phase 1 - \$1.0,
Phase 2 - \$54.6

AREA MAP



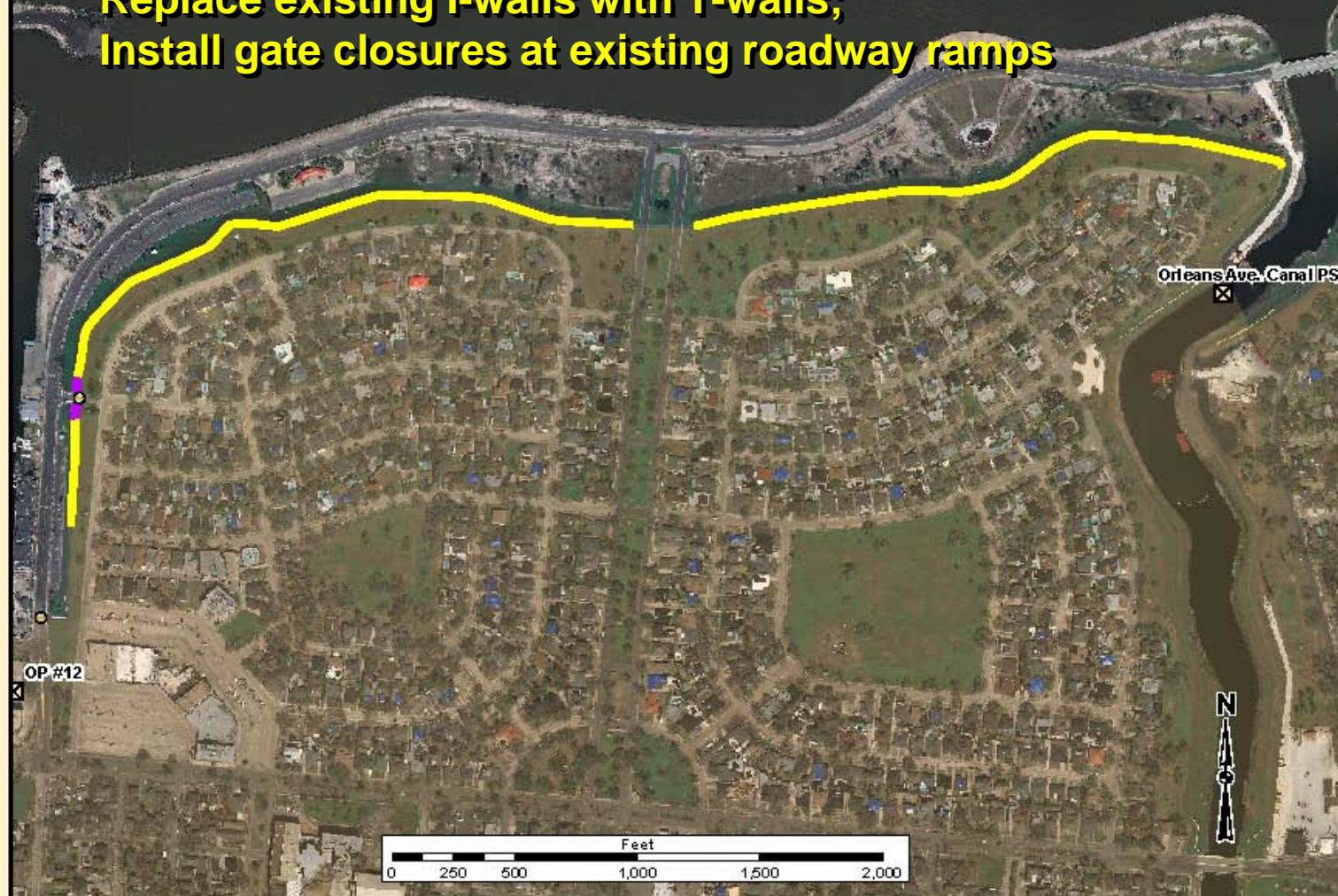
REGION MAP



Alternatives being considered, include:

LPV 102.02

- 1) Raise earthen levee;
Replace existing I-walls with T-walls;
Install gate closures at existing roadway ramps



U.S. ARMY ENGINEER DISTRICT
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Map Legend

- Channel Floodgate
- Wentzel Floodgate
- Riftless Floodgate
- Rose Floodgate
- Pump Station
- Federal Hurricane Flood-wall
- Federal Hurricane Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Wentzel Protection Levee
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal T Flood-wall
- Local Drainage Levee; Local Hurricane Levee
- Local Hurricane Levee and Flood-wall
- Local Levee; Federal Levee
- Rose Levee
- Parish Boundary

PROJECT STATISTICS

Total Length: 6022'
Federal Hurricane Levee: 5577'
Federal Levee and Floodwall: 151'
Stretch Gaps: 6; 294'
Authorized Grade: 18.5'
100-Year Grade: 18.5'-20.5'
Existing Elevation: 16.5'-19.0'
Est. Cost (Millions): Phase 1 - \$4.2,
Phase 2 - \$10.5

AREA MAP



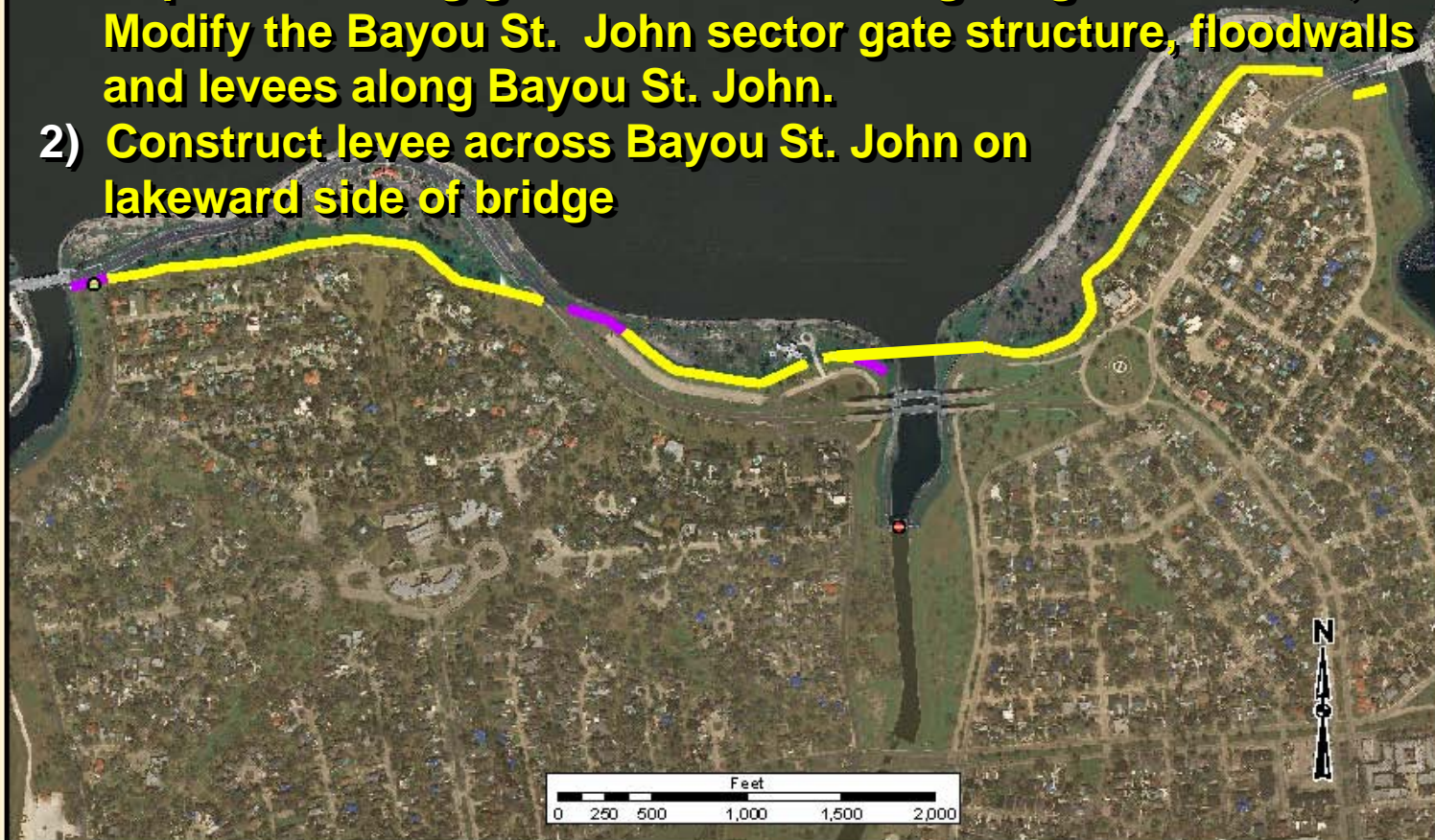
REGION MAP



Alternatives being considered, include:

LPV 103.02

- 1) Raise earthen levee;
Replace existing I-walls with T-walls;
Install gate closures at existing roadway ramps;
Replace existing gate closures with higher gate closures;
Modify the Bayou St. John sector gate structure, floodwalls and levees along Bayou St. John.
- 2) Construct levee across Bayou St. John on lakeward side of bridge



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Map Legend

- Channel Floodgate
- Inland Floodgate
- Railroad Floodgate
- Road Floodgate
- Pump Station
- Federal Hurricane Flood-wall
- Federal Hurricane Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Water Protection Levee
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal Flood-wall
- Local Drainage Levee, Local Hurricane Levee
- Local Hurricane Levee and Flood-wall
- Local Levee, Federal Free
- Road Levee
- Parish Boundary

PROJECT STATISTICS
Total Length: 1721'
Federal Hurricane Levee: 6479'
Federal Levee and Floodwall: 665'
Stretch Gaps (G): 573'
Authorized Grade: 18.0'
100-Year Grade: 18.5'-20.5'
Existing Elevation: 16.5'-20.0'
Est. Cost (Millions): Phase 1 - \$9.1,
Phase 2 - \$45.0

AREA MAP



REGION MAP



Alternatives being considered, include:

LPV 104.02

- 1) **Raise earthen levee;**
Replace existing I-walls with T-walls;
Raise roadway ramp crossings or install new floodgates



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MISSISSIPPI VALLEY DIVISION

Map Legend

- Channel Floodgate
- Inland Floodgate
- Railroad Floodgate
- Road Floodgate
- Pump Station
- Federal Hurricane Flood-wall
- Federal Hurricane Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Water Protection Levee
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal Flood-wall
- Local Drainage Levee, Local Hurricane Levee
- Local Hurricane Levee and Flood-wall
- Local Levee, Federal Flood
- Road Levee
- Parish Boundary

PROJECT STATISTICS
Total Length: 1,369'
Federal Floodwall: 538'
Federal Hurricane Levee: 970'
Federal Levee and Floodwall: 2930'
Structural Gaps: 6:520'
Authorized Grade: 18.0'-20.5'
100-Year Grade: 18.5'-20.5'
Existing Elevation: 15.0'-20.0'
Est. Cost (Millions): Phase 1 - \$5.8,
Phase 2 - \$25.2

AREA MAP



REGION MAP



Alternatives being considered, include:

LPV 105, East of Downman Rd

**1) Replace I-wall and earthen levee with T-wall along existing alignment;
Replace existing gate closures with higher gate closures**

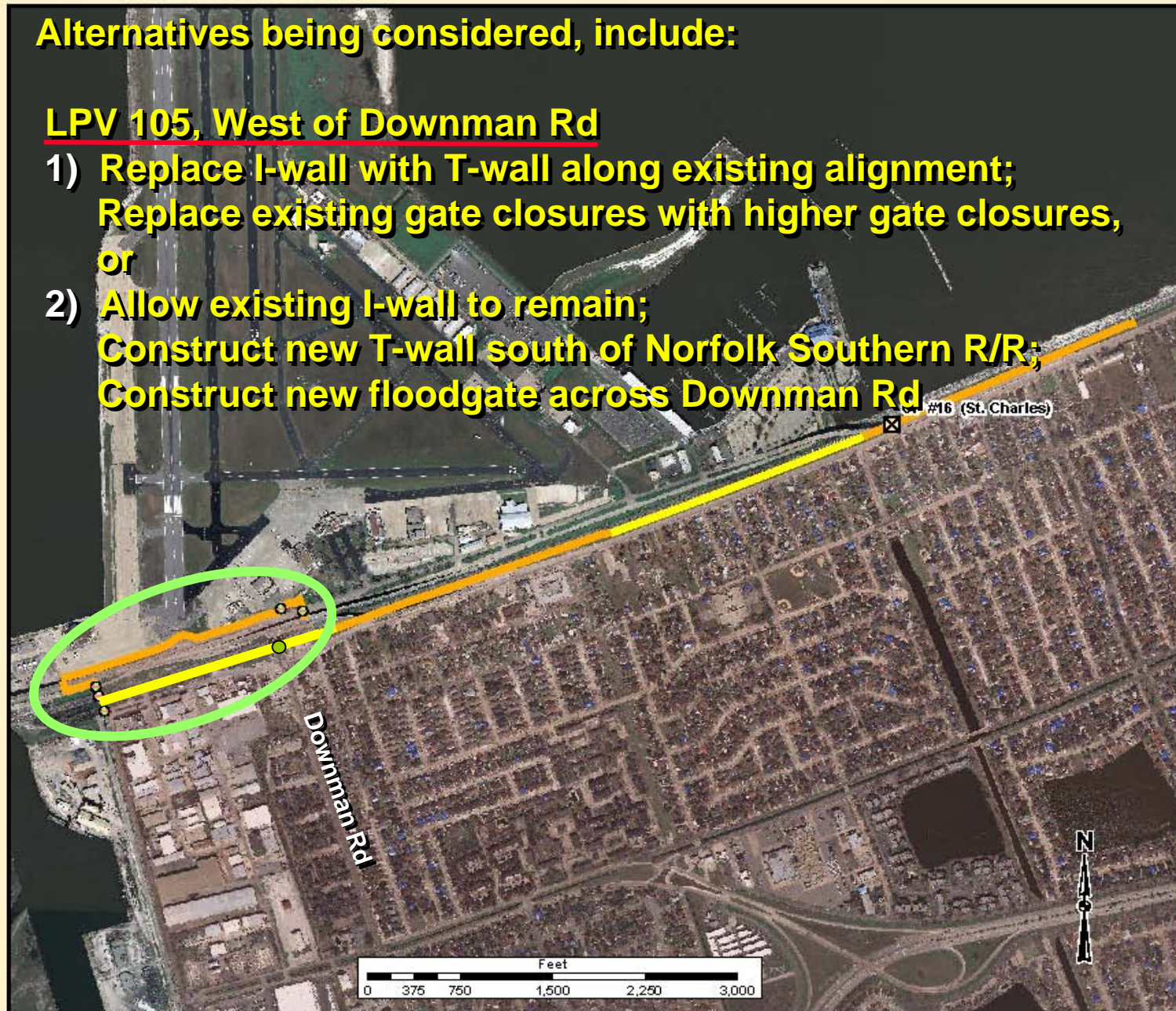
The map is an aerial photograph of a coastal area. A proposed alignment for LPV 105 is shown as a line that is orange for most of its length and yellow for a section enclosed by a green oval. This section is located east of Downman Rd. A label 'OP #16 (St. Charles)' with a small square icon is placed near the end of the alignment. A scale bar at the bottom indicates distances in feet (0, 375, 750, 1,500, 2,250, 3,000). A north arrow is in the bottom right corner. The text 'Downman Rd' is written vertically along the road.



Alternatives being considered, include:

LPV 105, West of Downman Rd

- 1) Replace I-wall with T-wall along existing alignment;
Replace existing gate closures with higher gate closures,
or
- 2) Allow existing I-wall to remain;
Construct new T-wall south of Norfolk Southern R/R;
Construct new floodgate across Downman Rd



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Map Legend

- Channel Floodgate
- Waterfall Floodgate
- Railroad Floodgate
- Road Floodgate
- Pump Station
- Federal Hurricane Flood-wall
- Federal Hurricane Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Water Protection Levee
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal River Levee
- Federal River Levee and Flood-wall
- Federal Flood-wall
- Local Drainage Levee; Local Hurricane Levee
- Local Hurricane Levee and Flood-wall
- Local Levee; Floodwall
- Road Levee
- Private Property

PROJECT STATISTICS
Total Length: 100.7'
Federal Floodwall: 7,307'
Federal Hurricane Levee: 2,359'
Federal Levee and Floodwall: 52'
Structural Gaps: (6): 359'
Authorized Grade: 15'
100-Year Grade: 23'
Existing Elevation: 12.0-14.0'
Est. Cost (Millions): \$116.0

AREA MAP



REGION MAP



LPV-106 - Citrus Lakefront Levee (west of Paris Road)

Alternatives being considered, include:

LPV 106

- 1) **Raise earthen levee and stone breakwater.**
or
- 2) **Construct new T-wall.**



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Map Legend

- Channel Floodgate
- Truss Floodgate
- Rubble Floodgate
- Road Floodgate
- Pump Station
- Federal Hurricane Flood-wall
- Federal Hurricane Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Interlock Protection Levee
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal River Levee
- Federal River Levee and Flood-wall
- Federal T Flood-wall
- Local Drainage Levee; Local Hurricane Levee
- Local Hurricane Levee and Flood-wall
- Local Levee to Floodwall
- Road Levee
- Parish Boundary

PROJECT STATISTICS
Total Length: 2187'S
Federal Hurricane Levee: 2175'
Federal Levee and Floodwall: 103'
Street Gap: 21'
Authorized Grade: 15'
100-Year Grade: 20'
Existing Elevation: 12.5-13.0'
Est. Cost (Millions): \$28.7

AREA MAP



REGION MAP



Alternatives being considered, include:

LPV 107

- 1) Replace existing I-wall with T-wall;
Replace existing gate closure for Lincoln Beach Access
with higher gate closure.



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Map Legend

- Channel Floodgate
- Wentzel Floodgate
- Ridgely Floodgate
- Rose Floodgate
- Pumpout
- Federal Interlake Flood-wall
- Federal Interlake Flood-wall
- Federal Interlake Levee
- Federal Interlake Levee and Flood-wall
- Wentzel Protection Levee
- Federal Wentzel Protection Levee
- Federal Wentzel Protection Levee and Flood-wall
- Federal River Levee
- Federal River Levee and Flood-wall
- Federal T Flood-wall
- Local Drainage Levee, Local Interlake Levee
- Local Interlake Levee and Flood-wall
- Local Levee/Floodwall
- Road Levee
- Parish Boundary

PROJECT STATISTICS
Total Length: 1961'
Federal Floodwall: 1526'
Structure Gap: 35'
Authorized Grade: 15'
100-Year Grade: 20'
Existing Elevation: 12.5'
Est. Cost (Millions): \$16.4

AREA MAP



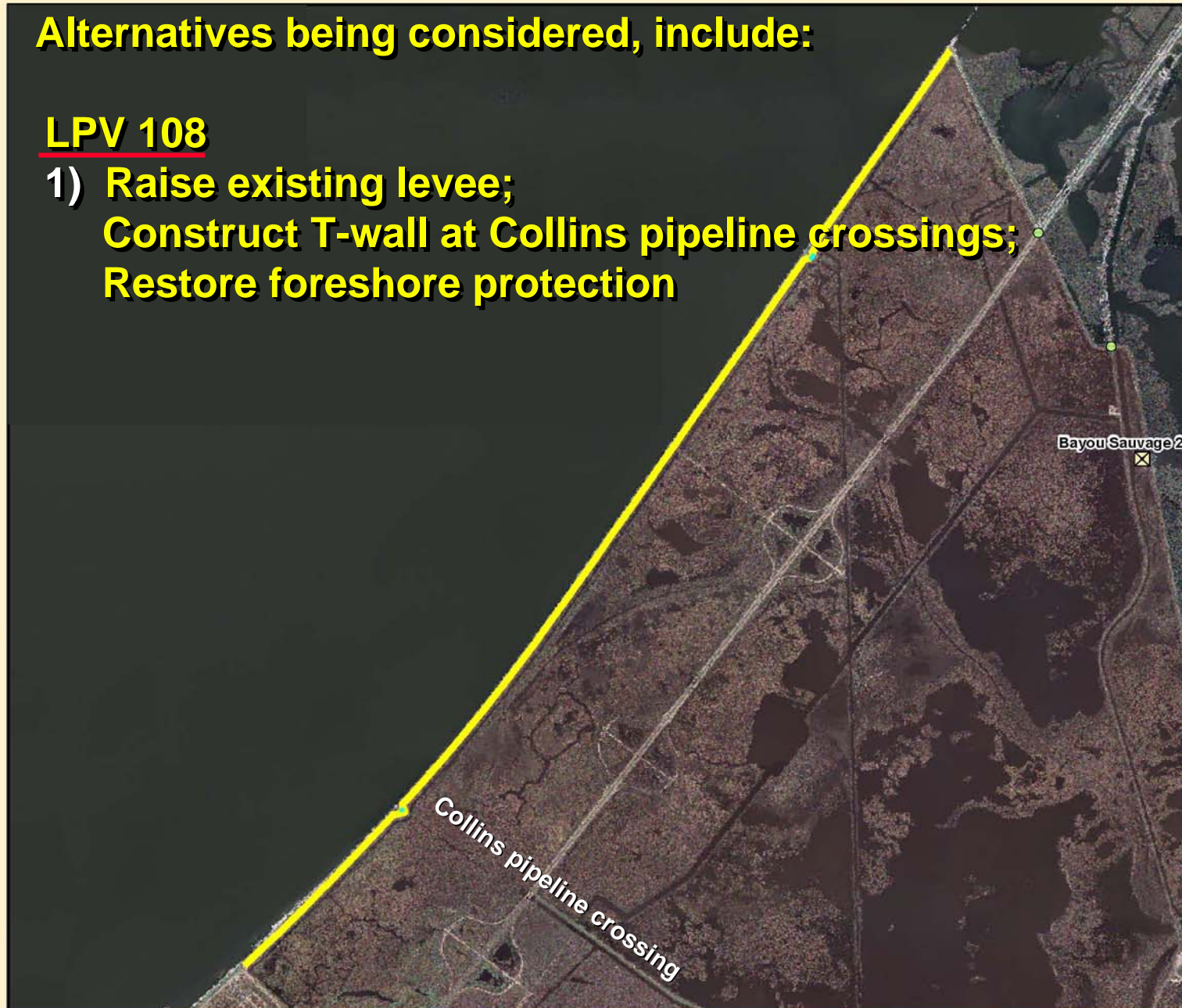
REGION MAP



Alternatives being considered, include:

LPV 108

- 1) **Raise existing levee;
Construct T-wall at Collins pipeline crossings;
Restore foreshore protection**



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Map Legend

- Channel Floodgate
- Industrial Floodgate
- Railroad Floodgate
- Road Floodgate
- Pump Station
- Federal Hurricane Floodwall
- Federal Hurricane L Floodwall
- Federal Hurricane Levee
- Federal Hurricane Levee and Floodwall
- Interior Protection Levee
- Federal River/Hurricane Levee
- Federal River/Hurricane Levee and Floodwall
- Federal River Levee
- Federal River Levee and Floodwall
- Federal T Floodwall
- Local Drainage Levee, Local Hurricane Levee
- Local Hurricane Levee and Floodwall
- Local Levee to Federalized
- Road as Levee
- Parish Boundary

PROJECT STATISTICS

Total Length: 33687'
Federal Floodwall: 450'
Federal Hurricane Levee: 33118'
Structure Gaps (2): 118'
Authorized Grade: 18.5'
100-Year Grade 17.0-18.0'
Existing Elevation 17.5-19.5'
Est. Cost (Millions): \$28.9

AREA MAP



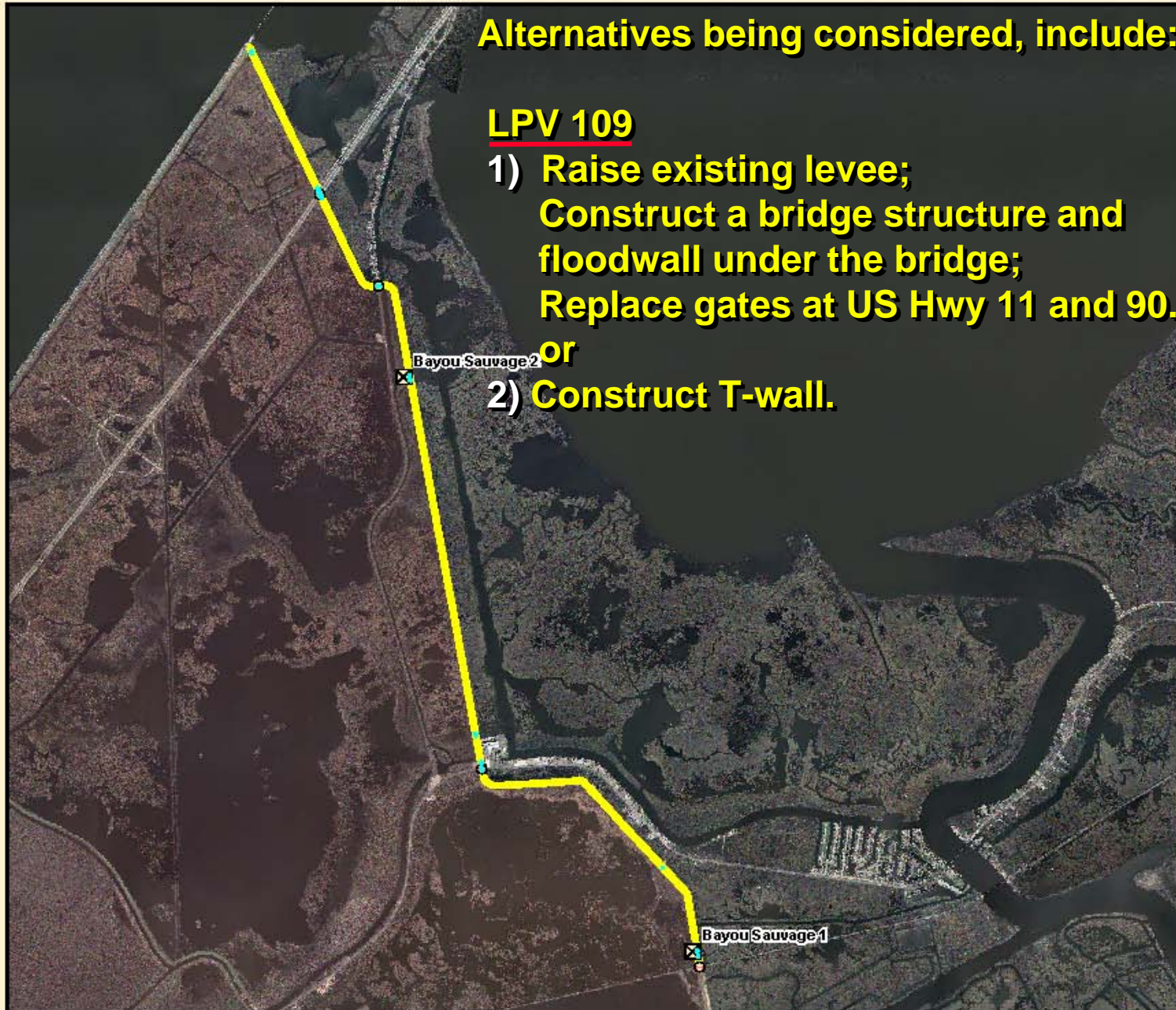
REGION MAP



Alternatives being considered, include:

LPV 109

- 1) Raise existing levee;
Construct a bridge structure and
floodwall under the bridge;
Replace gates at US Hwy 11 and 90.
or**
- 2) Construct T-wall.**



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Map Legend

- Channel Floodgate
- Weir/Fill Floodgate
- Railroad Floodgate
- Road Floodgate
- Pump/Gate
- Federal Hurricane Flood-wall
- Federal Hurricane Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Floodwall
- Winter Protection Levee
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal River Levee
- Federal River Levee and Flood-wall
- Federal T Flood-wall
- Local Drainage Levee/Local Hurricane Levee
- Local Hurricane Levee and Flood-wall
- Local Levee to Floodwall
- Road Levee
- Partial Boundary

PROJECT STATISTICS
Total Length: 3952 ft
Federal Floodwall: 365'
Federal Hurricane Levee: 3808 ft
Federal Levee and Floodwall: 44'
Structural Gaps: (11): 986'
Authorized Grade: 14.0-17.0'
100-Year Grade: 17.5-18.5'
Existing Elevation: 7.5-17.0'
Est. Cost (Millions): \$47.2

AREA MAP



REGION MAP

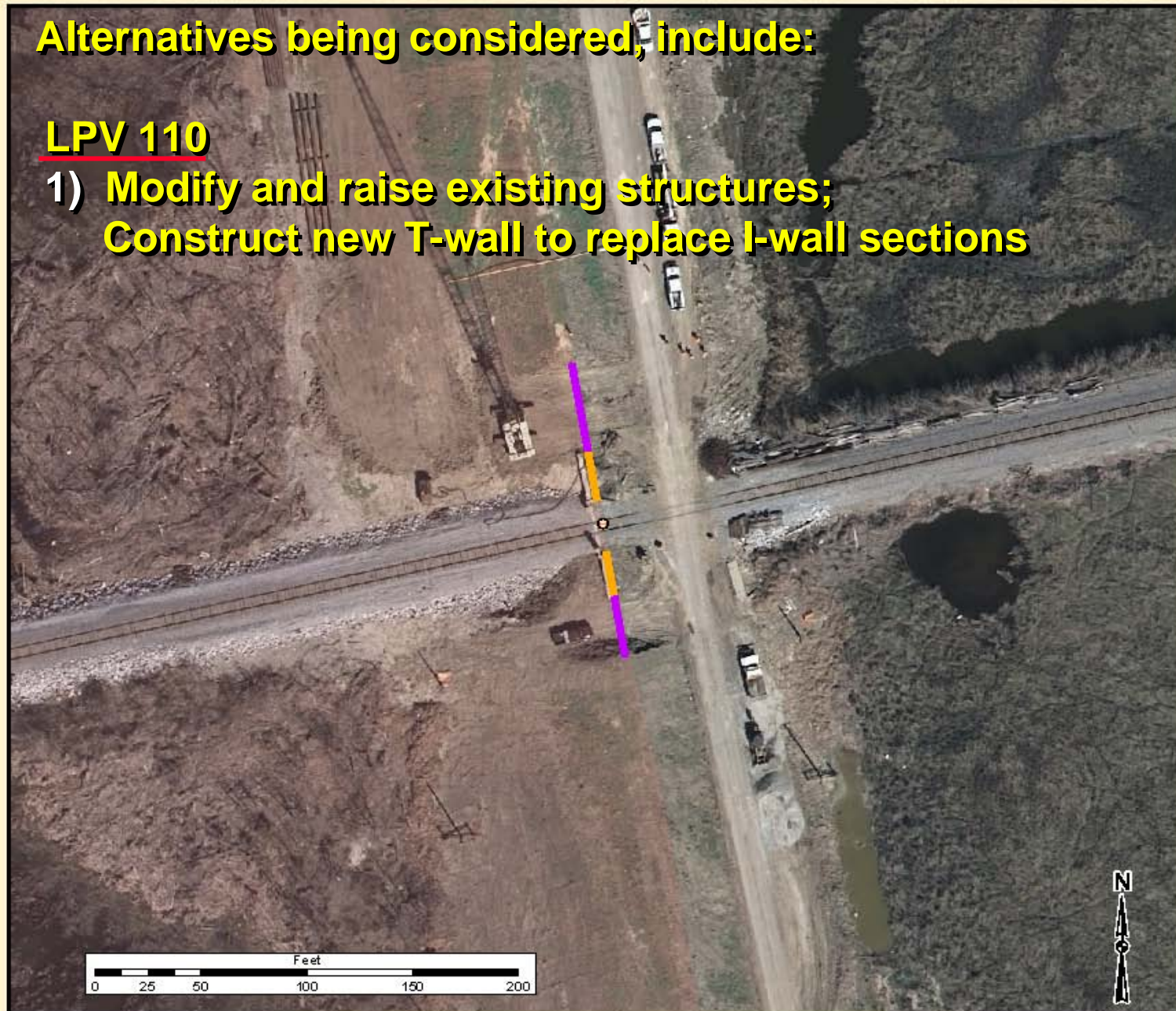


LPV-110 - New Orleans East Levee - CSX Railroad Gate

Alternatives being considered, include:

LPV 110

- 1) Modify and raise existing structures;
Construct new T-wall to replace I-wall sections**



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MISSISSIPPI VALLEY DIVISION

Map Legend

- Channel Floodgate
- Inverted Floodgate
- Railroad Floodgate
- Road Floodgate
- Pump Station
- Federal/Road/Floodgate Floor-wall
- Federal/Road/Floodgate Floor-wall
- Federal/Road/Floodgate Floor-wall
- Federal/Road/Floodgate Floor-wall
- Water Protection Levee
- Federal/Road/Floodgate Levee
- Federal/Road/Floodgate Levee Floor-wall
- Federal/Road/Floodgate Floor-wall
- Federal/Road/Floodgate Floor-wall
- Federal/Road/Floodgate Floor-wall
- Local Drainage Levee; Local Floodgate Levee
- Local Floodgate Levee Floor-wall
- Local Levee; Federal/Road
- Road Levee
- Parish Boundary

PROJECT STATISTICS

Total Length: 144'
Federal Floodwall: 45'
Federal Levee and Floodwall: 73'
Structure Gap: 25'
Authorized Grade: 17.0'
100-Year Grade: 23.5'
Existing Elevation: 17'
Est Cost (Millions): \$1.3

AREA MAP



REGION MAP

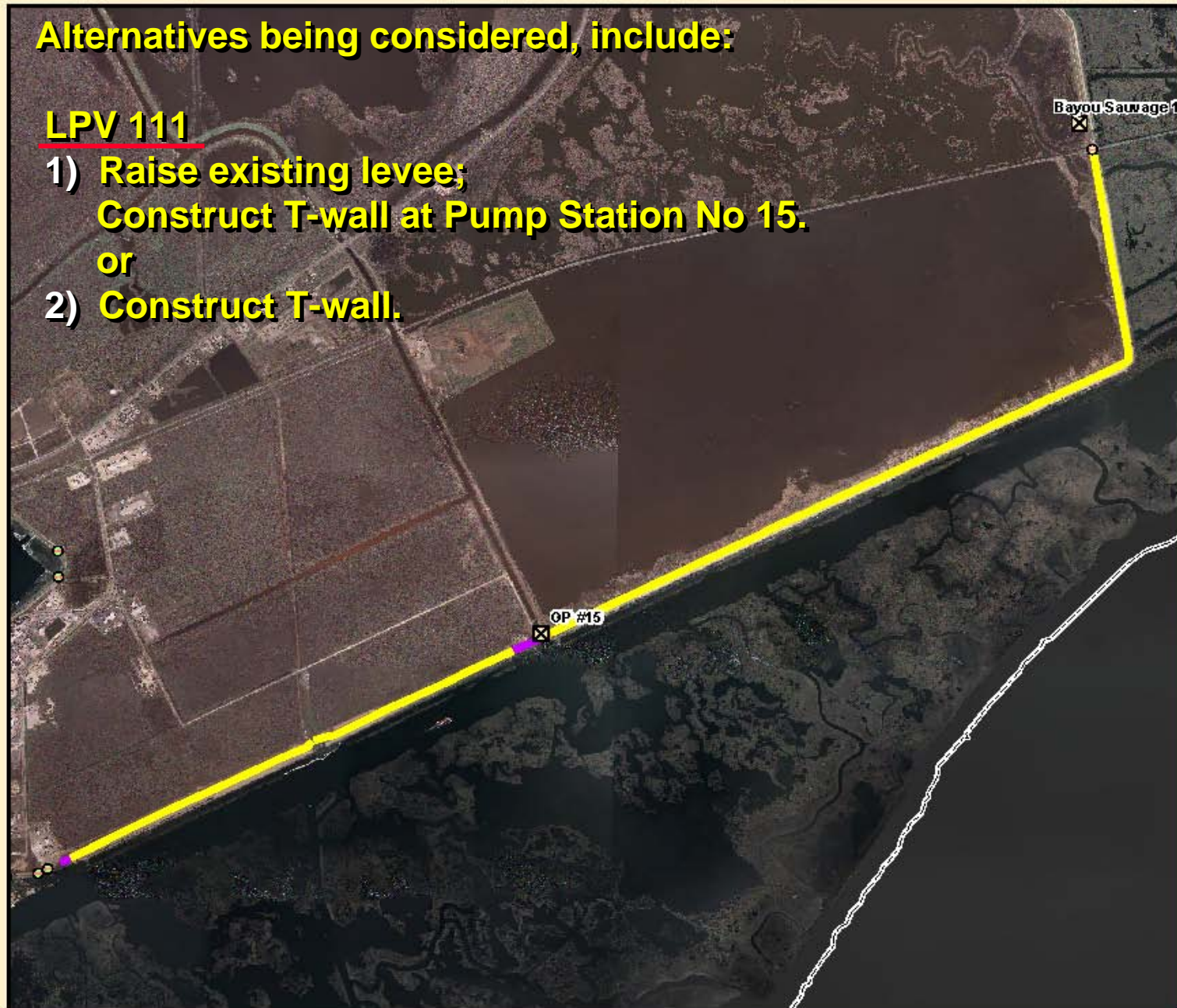


LPV-111- New Orleans East Bank Levee- CSX Railroad to Michoud Canal

Alternatives being considered, include:

LPV 111

- 1) Raise existing levee;
Construct T-wall at Pump Station No 15.
or
- 2) Construct T-wall.



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Map Legend

- Channel Floodgate
- Wentzel Floodgate
- Railroad Floodgate
- Road Floodgate
- Pump Station
- Federal/Partners Flood-wall
- Federal/Partners Flood-wall
- Federal/Partners Levee
- Federal/Partners Levee and Flood-wall
- Water Storage Levee
- Federal/Partners Levee
- Federal/Partners Levee and Flood-wall
- Federal/Partners Levee
- Federal/Partners Levee and Flood-wall
- Federal/Partners Levee
- Federal/Partners Levee
- Local Drainage Levee; Local Partners Levee
- Local Partners Levee and Flood-wall
- Local Levee; Federal/Partners
- Road Levee
- Partners Boundary

PROJECT STATISTICS
Total Length: 26.200
Federal Floodwall: 2.45'
Federal Levee and Floodwall: 7.25'
Federal/Partners Levee: 27.112
Structure Gaps: 116'
Authorized Grade: 17.5'
100-Year Grade: 24.0-27.0
Existing Elevation: 15.5-19.5'
Est. Cost (Million): \$38.3

AREA MAP



REGION MAP

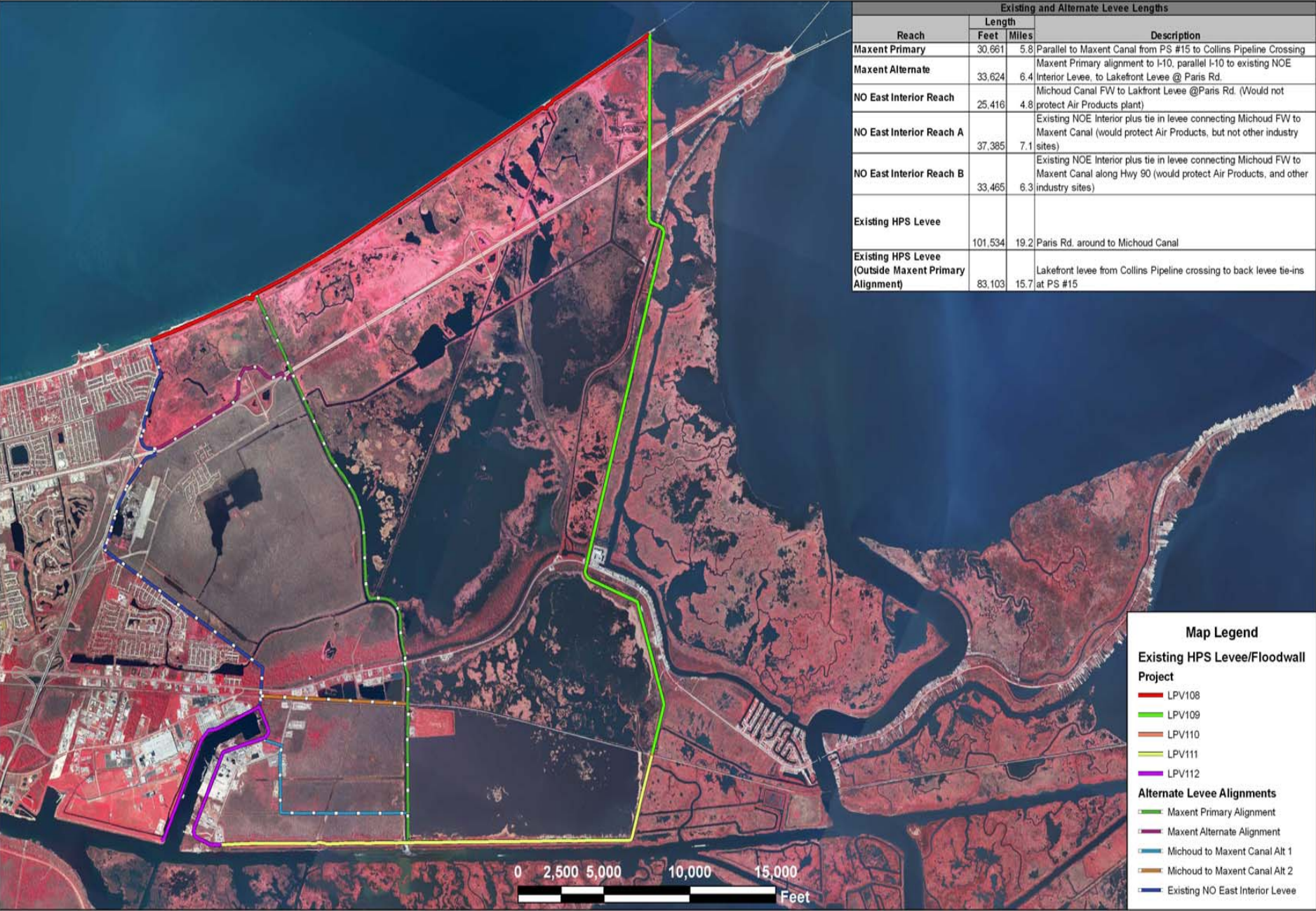




US Army Corps
of Engineers

New Orleans East Existing and Alternate Levee/Floodwall Alignments

Including reach lengths for existing and proposed alternate levee alignments



Reach	Existing and Alternate Levee Lengths		Description
	Feet	Miles	
Maxent Primary	30,661	5.8	Parallel to Maxent Canal from PS #15 to Collins Pipeline Crossing
Maxent Alternate	33,624	6.4	Maxent Primary alignment to I-10, parallel I-10 to existing NOE Interior Levee, to Lakefront Levee @ Paris Rd.
NO East Interior Reach	25,416	4.8	Michoud Canal FW to Lakefront Levee @Paris Rd. (Would not protect Air Products plant)
NO East Interior Reach A	37,385	7.1	Existing NOE Interior plus tie in levee connecting Michoud FW to Maxent Canal (would protect Air Products, but not other industry sites)
NO East Interior Reach B	33,465	6.3	Existing NOE Interior plus tie in levee connecting Michoud FW to Maxent Canal along Hwy 90 (would protect Air Products, and other industry sites)
Existing HPS Levee	101,534	19.2	Paris Rd. around to Michoud Canal
Existing HPS Levee (Outside Maxent Primary Alignment)	83,103	15.7	Lakefront levee from Collins Pipeline crossing to back levee tie-ins at PS #15

Map Legend

Existing HPS Levee/Floodwall Project

- LPV108
- LPV109
- LPV110
- LPV111
- LPV112

Alternate Levee Alignments

- Maxent Primary Alignment
- Maxent Alternate Alignment
- Michoud to Maxent Canal Alt 1
- Michoud to Maxent Canal Alt 2
- Existing NO East Interior Levee

IHNC Alternative Concepts



*These renderings are preliminary and represent alternative concepts only. They do not represent the final design or placement of the proposed gates and or canals. Therefore, no one should place any reliance on, or make any decisions based upon, these preliminary renderings.

Questions regarding these projects should be addressed to:

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**[http://www.mvn.usace.army.mil/pd/Envir_Processes_NEPA/Index.
htm](http://www.mvn.usace.army.mil/pd/Envir_Processes_NEPA/Index.htm)**